

NOTES:

- ① FOR DETAIL REQUIREMENTS OF THE TYPE I AND IA MANHOLE COMPONENTS, REFER TO STANDARD DETAIL DRAWING NOS. R-207A, R-207B, R-208A AND R-208B.
- ② EARTH IN PLACE CAN BE USED AS FORM.
- ③ FORM CIRCULAR OR ELLIPTICAL MANHOLE.
- ④ SANDBAGS MAY BE USED TO FORM.
- ⑤ 6" DRAIN ROCK.
- ⑥ SLOPE TO CONFORM WITH PIPE BELOW SPRING LINE. PROVIDE SMOOTH FINISH.
7. PRECAST MANHOLE COMPONENTS SHALL CONFORM TO ASTM C-478.
8. TYPE IV MANHOLE TO BE UTILIZED FOR PIPE DIAMETERS OF 30" AND GREATER.
9. MANHOLE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF SECTION 204 "MANHOLES AND CATCH BASINS" OF THE STANDARD SPECIFICATIONS.
10. EXCAVATION AND BACKFILL SHALL BE AS SPECIFIED FOR "TRENCH EXCAVATION AND BACKFILL" IN SECTION 305 OF THE STANDARD SPECIFICATIONS.
11. EXCAVATION SHALL BE AS NEARLY VERTICAL AS POSSIBLE (SHEET AND SHORE IF SOIL CONDITIONS REQUIRE), IN EXISTING STREET SECTIONS, ALLEY SECTIONS AND CONFINED AREAS, SUCH AS LIMITED EASEMENTS OR ADJACENT STRUCTURES. NATURAL ANGLE OF REPOSE WILL BE ALLOWED IN ALL OTHER AREAS.
12. ALL MANHOLES SHALL BE WATERTIGHT.
13. REINFORCING STEEL SHALL BE AS SHOWN, WIRED TIGHTLY AT ALL INTERSECTIONS AND EMBEDDED AT LEAST ONE INCH CLEAR, UNLESS OTHERWISE NOTED.
14. PRIOR TO BACKFILLING, ALL MANHOLES SHALL BE VACUUM TESTED PER THE REQUIREMENTS OF ASTM C-1244.

NO.	REVISION	DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	SECTION RENO	
			NOTES— MANHOLE TYPE IV	DRAWING NO. R-231B (306,311)	
				DATE	PAGE
				01/04	238
APPROVED BY		G.S. 01/04			